AIS Programming Standards

JCL Coding Standard

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Introduction

The JCL standard was developed to ensure consistency in the developement of PROCLIB and RUNJCL members for the batch production environment. This consistency assists in expediting the rerun/restart effort when abends occur. It also assists in determining the most productive way to utilize Job Control Statements. All Production Jobs must conform to the following standard for JCL syntax and card image layout.

The PROC Statement

The *proc* statement is the first card image in all procs. The *proc* statement must be named the same as the **PROC** (member name).

The EXECUTE Statement

Sample:

```
//procname   EXEC  procname,
//                   symbolic=variable
```

- The procedure name must replace *'procname'* in the name field and the operand field of the **EXEC** statement.
- All symbolics that are used in a **PROC** must have a default specification (null values are acceptable) and must default to some selected value that will help to identify the required specification, e.g., DATE=MDDYY.
- Each **EXEC** statement must be named **STEPnnn** where **nnn** is 010 to 990. They should be sequentially numbered in increments of 10.
- When adding or deleting steps, the stepname should be re-sequenced unless this will prevent timely turnover due to complexity of stepname references in the documentation or **'COND'** parameter specifications.

The DD Statement

STEPLIB DD

STEPLIB DD statements must all conform to the following image:

```
//STEPLIB    DD  DSN=xxxxxx.LOADLIB,DISP=SHR
```

The **STEPLIB** statement must follow the **EXEC** statement.

INPUT DD

INPUT DD statements must conform to the following image:

```
//filename  DD  DSN=xxxxxx.P.RUNDATE, DISP=SHR
```

Most input datasets require only DISP, and DSN. When this is the case, only one line should be used (DISP may be continued to a second line if there is insufficient room on the first line).

When other parameters are needed for input datasets, they should be added as continuation statements.

OUTPUT DD

OUTPUT DD parameters should appear in the following order (when they are required):
DSN, DISP, UNIT, SPACE, DCB, LABEL, VOL.

FOR output datasets using disk, the UNIT parameter should always point to the General Use Pool (UNIT=AISDA). The only exception are for work datasets, which point to the "WORK" sub-pool (UNIT=WORK).

Utility program work DDnames, SYSOUT DD, and SORTWK DD statements can usually be specified with only two or three parameters. These statements should be coded on one line. For example:

```
//SORTWK01   DD  UNIT=WORK,SPACE=(CYL,10)
//SYSUT1         DD  DISP=OLD,UNIT=WORK,VOL=SER=WORK11
```

All production applications must conform to the Naming Convention Standard in the Users Guide (UG #1130).

SYSOUT DD statements should be added at the end of the PROC. They will follow the Work Dataset DD statements.

A "Comment Card" should be placed prior to each step.

Tape DCB Statements:

The TSO CLIST "**BLKSIZE**" is available to assist the AIS Staff in determining the correct blocksize and space for a given record size and number of records.

The **LRECL** parameter should be specified to meet the needs of the program.

The record format (**RECFM**) for fixed length records should be specified as ‘standard’ (**RECFM=FB**). Otherwise, it should be specified to meet the needs of the program.

Density (**DEN**) should **not** be specified (ie. use the default).

Tapes created for off-line printing should use a blksize under 12K.

DCB specifications for tapes sent to outside agencies may vary from the above standards only if absolutely necessary. Files being sent to outside agancies **must use FTP**. Exceptions for production datasets should be ***approved by the Project Manager.***

For GDGs, the pattern **DSCB** should always be coded first and should always reference ISDMOD.P.PATTERN. Then the **RECFM, LRECL and BLKSIZE** should be specified.

Disk Datasest DCB Statements

Sequentially accessed disk datasets should use a blocksize equal to the highest multiple of the **LRECL** that fits into a half track of 3390, (27998 bytes).

Any GDGs should reference the pattern **DSCB** "ISDMOD.P.PATTERN", and then **RECFM, LRECL**, and **BLKSIZE** should be specified.

Disk Dataset Specifications

When coding space requirements, the choice of increment (**CYL, TRK or "Block"**) should be determined as follows:

- Use **CYL** for Large datasets
- Use **TRK** for small datasets and for large datasets that are infrequently used.
- Use "**block**" for datasets that vary in size more than 10% but only when the number of records can be determined easily before the job is run.

Primary requests should be as close to real need as possible. For space requests in "blocks", the primary should equal the total number of records divided by the number of records in a block.

Secondary requests should normally be 10% of the primary.

Release (**RLSE**) should always be included in the space request.

The use of Non Labeled tapes (NL) should not be used unless absolutely necessary. **Approval must be acquired by the Applications Manager.**

Job Priorities

All production jobs that originate through the scheduler must be assigned a priority number of 1 or 2. These priorities assist Production Support Services staff with determining the best course of action to take when Production Processing is delayed.

The priority is based on whether or not intervention is required by Production Support Services or the Programmer. This is determined by the applications team when:

- adding new jobs to the Scheduler.

- the order of processing in Scheduler has been changed.

Priority Description

- Priority 1: Job is important and must be fixed immediately. Programmer **must be** contacted.
- Priority 2: Jobs can wait until morning for resolution. **Do not** contact Programmer. This priority **cannot** be used for any job which is a prerequisite to other production jobs.

Driver (Automated Job Setup - DPROC)

The automated job setup facility (DRIVER) that comes with our automated job scheduler (CA-SCHEDULER) can be used to provide values for symbolics or control card fields. There are several reserved parameter names that can be used for date fields.

Application developers should contact Production Support Services to find out how DRIVER can be used.

Related Policy, Procedures or Standards

see also:

- Accountability & Exceptions

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